REMARKS

Applicants acknowledge the indication of the allowability of the subject matter of Claim 9, as set forth at paragraph 4 on page 6 of the Office Action. In particular, Claim 9 would be allowable if rewritten in independent form. Nevertheless, for the reasons articulated in greater detail hereinafter, Applicants respectfully submit that Claim 9 is now allowable in its present dependent form.

In response to the objection to the disclosure, the title of the invention has been amended such that it is clearly indicative of the invention to which the claims are directed. In addition, the specification has been amended to incorporate appropriate headings, consistent with U.S. practice. Accordingly, reconsideration and withdrawal of these grounds of objection are respectfully requested.

Claims 1-9 have been rejected under 35 U.S.C. §102(e) as anticipated by Hughes et al (U.S. Patent No. 6,747,971), while Claims 2 through 9 have been rejected under 35 U.S.C. §103(a) as unpatentable over Hughes et al in view of Joo et al (U.S. Patent No. 5,963,552). However, for the reasons set forth hereinafter, Applicants respectfully submit that all claims remaining of record in this application distinguish over the cited references, whether considered separately or in combination. (Applicants note in this regard that Claim 9 has been included in the above grounds of rejection. However, in view of the specific

indication of the allowability of the subject matter of Claim 9, as set forth in paragraph 4 of the Office Action referred to previously, Applicants believe that the reference to Claim 9 in the foregoing grounds of rejection was an oversight. Accordingly, the foregoing prior art rejections are treated for the purpose of this response as applicable only to Claims 1-8.)

The present invention is directed to a method of operating a packet switch for use in data transfer in accordance with a standard protocol, such as the Internet protocol, in which data are transferred in variable sized portions known as packets. A packet switch in this context is a device for accepting incoming packets, temporarily storing them, and forwarding them to another part of a data network. In particular, a packet switch receives packets of data on a plurality of input ports and transfers each packet to a specific one of a plurality of output ports.

A packet switch of the type indicated above includes a plurality of ingress means, a plurality of egress means, a backplane device known as a cell based cross-bar, and a controller. The cross-bar is connected between the ingress means and the egress means to transfer multicast and unicast data from the ingress means to the egress means, under control of the controller.

In accordance with the present invention, for the purpose of controlling the transfer of data traffic across the packet switch, the controller first determines if the data traffic that is to be transferred is unicast or multicast.

(The term "multicast" means simply that data cells are transmitted concurrently to a plurality of egress ports within the packet switch.) If the data is to be unicast, a unicast schedule is invoked, while if the data is to be multicast, a multicast schedule is invoked; and the data traffic are then transferred in accordance with the invoked schedule.

According to the invention, where the data are to be multicast, the step of invoking a multicast schedule includes forming a multicast cell fanout table containing current fanout requirements for a cell at the head of a multicast queue in each ingress means. (The fanout of a multicast packet is defined as the set of egress ports to which the packet must be replicated.) Eligible bits are then set for multicast cells which are currently allowed to be scheduled, and a priority is determined for each ingress means for sending the cells. In particular, as recited in Claim 1 as amended, "the step of determining the priority for each ingress means is based on a combination of send opportunities of the ingress means".

The Hughes et al reference, on the other hand, discloses a crosspoint switching apparatus which includes an ingress port and a plurality of switch planes, where each of the switch planes has a dedicated scheduler, and each of the switch planes are communicatively coupled to the ingress port. The Office Action states that the combination of Hughes et al and Joo et al discloses a multicast schedule in which a priority for each ingress means for sending the

cells is based on the combination of send opportunities of the ingress means, as described previously, and as recited in Claim 1. In particular, the Office Action states that this feature is equivalent to the Multicast Grant Preference Pointer and Multicast Round Robin Pointer described in the specification of Hughes et al at Column 17, line 63 to Column 18, line 54.

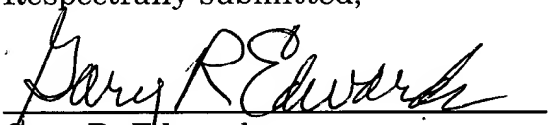
In response to this ground of rejection, Applicants refer to Column 18, lines 3 through 6 and 11 through 13 of Hughes et al, where it is explained that the purpose of the Multicast Grant Preference Pointer is simply to determine whether a multicast request is to be preferred over a unicast request. Moreover, as further explained at Column 18, lines 6 through 7, the Multicast Round Robin Pointer is simply used to select a particular multicast request if more than one such request exists. Thus, neither of these functions determines within a multicast schedule priority of each ingress means for sending the cells. More particularly, neither of these functions calls for determining the priority for each ingress means, based on a combination of send opportunities of the ingress means, as recited in Claim 1, as amended. Accordingly, Applicants respectfully submit that Claim 1, and therefore all claims remaining of record in this application, distinguish over the cited combination of Hughes et al and Joo et al.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general,

a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #3036/49955).

Respectfully submitted,



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